#### **Updates in CARB Pollution Mapping Tool Version 1.1**

CARB has released an updated version of the Pollution Mapping Tool (formerly known as the Integrated Emissions Visualization Tool). Major changes in this version of the tool include:

- Greenhouse gas (GHG) and criteria pollutant emissions data for 2015
- Updated facility information and criteria pollutant emissions data
- California geologic basins map layer
- Oil and gas fields map layer
- Enhanced markers and location details for oil and gas production operations
- CalEnviroScreen 3.0 layer
- Improved functionality

More detailed information on these updates is provided below.

#### 2015 Emissions Data

Version 1.1 of the tool includes GHG and criteria pollutant emissions data for 2015 that were not yet available when the original tool was released at the end of 2016. The tool includes emissions data for California facilities that are subject to CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR), which requires facilities emitting 10,000 metric tons or more of  $CO_2$  equivalent emissions to report annually. This update includes emissions for an additional 16 facilities newly identified by CARB as required to report under MRR.

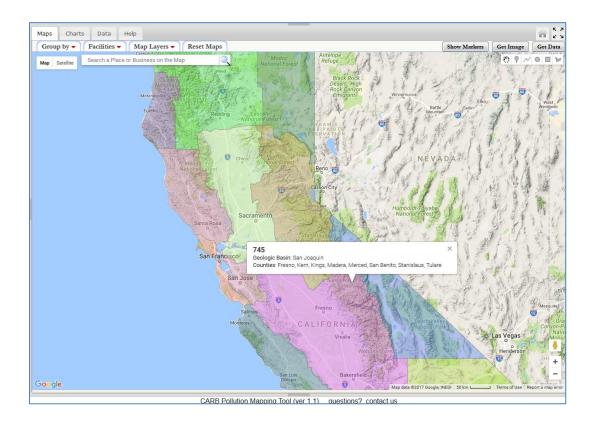
Special note about ammonia (NH3) emissions: Ammonia emissions are not included in this version of the tool due to reporting inconsistencies. CARB staff are working with air districts to resolve this issue and hope to include these emissions in the next update.

## **Updated Facility Information and Criteria Pollutant Emissions Data**

Version 1.1 includes updates to the facility crosswalks used to match the facility IDs reported to CARB's GHG and criteria pollutant databases, based on feedback from the local air districts. In addition, the criteria pollutant emissions reflect updates to previous years' data that were submitted by the air districts as part of their quality assurance review of the data presented in the December 2016 version of the tool. The entire criteria pollutant emissions time series for 2008-2015 has been updated to reflect the most recently available data as of May 12, 2017. A list of the changes discussed above is presented in Appendix 1.

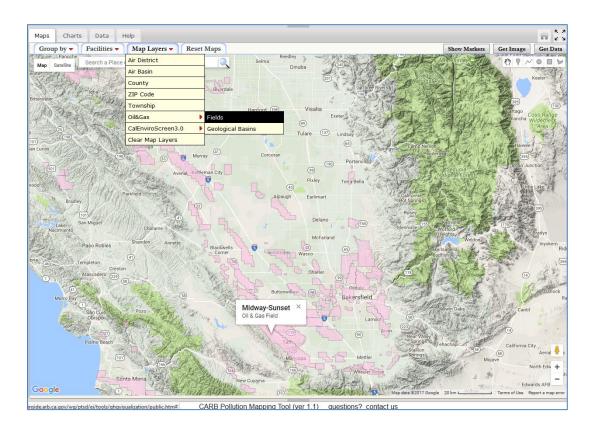
# **California Geologic Basins Map Layer**

MRR requires that onshore petroleum and natural gas production facilities in California aggregate and report their applicable GHG emissions using the geologic province or basin footprint as defined by the American Association of Petroleum Geologists. Version 1.1 of the tool includes a layer of the geologic basins to provide context as to the reporting footprint and basin name of the oil and gas production facilities (note that, in many cases, a basin may contain multiple California counties).



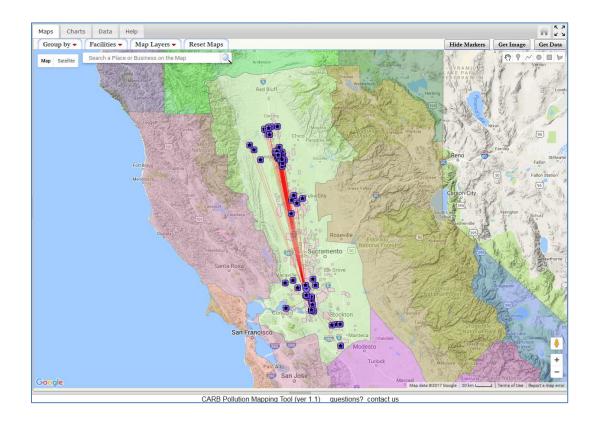
### Oil and Gas Fields Map Layer

In addition to the geologic basin map layer, version 1.1 of the tool also includes a layer for oil and gas fields. Local air districts require oil and gas facilities to report criteria pollutants at a more granular level than geologic basin, and facilities are often identified by a lease name, a collection of Township/Range/Sections, or an actual physical facility. The oil and gas fields map layer allows users to see where these types of operations may actually take place within the context of a geologic basin, a county, or any other geographical region.



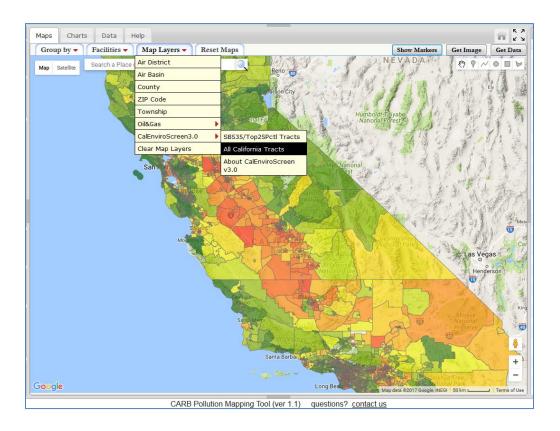
#### **Enhanced Markers and Location Details for Oil and Gas Production Operations**

Markers for petroleum and natural gas systems have been updated to differentiate between those reporting aggregated basin-level GHG emissions and those reporting as single-location facilities. Oil and gas production facilities that have multiple sub-facilities within the geological basin are now represented by a purple marker with a dot in the middle ( $^{\circ}$ ), and other petroleum and natural gas systems facilities are represented by a solid purple marker ( $^{\circ}$ ). Furthermore, sub-facilities that report criteria pollutants individually but report GHG emissions at the basin-level are identified with a rectangular marker ( $^{\circ}$ ) that is linked with a line to the oil and gas production facility marker. When users click on an oil and gas production facility, the tool automatically loads the geologic basin and oil-and-gas fields map layers, and creates a view that shows the location of all the individual sub-facilities that report under the aggregated GHG entity. Users can click on the sub-facility marker to see information about the sub-facility along with the criteria pollutant emissions reported in the most recent year.



#### CalEnviroScreen 3.0 Map Layer

A CalEnviroScreen map layer has been added to help users identify facilities within the context of California's disadvantaged communities. CalEnviroScreen ranks each of the state's 8,000 census tracts using data on 20 indicators of pollution, environmental quality, socioeconomic and public health conditions. Version 1.1 of the Pollution Mapping Tool allows users to load CalEnviroScreen layers of the Top-25 percentile (as defined by SB 535), or all census tracts in the state. Users can also select any census tract and see a summary of the CalEnviroScreen scores and percentiles for each of the various indicators. Clicking on any individual indicator will take the user directly to the relevant section in CalEnviroScreen's documentation.



#### **Improved Functionality**

The facility search function has been enhanced to allow searches by any character string contained in the facility name, GHG ID, address, city, ZIP code, or industrial sector. New buttons were added to reset the search criteria, and to hide/show the facility markers. Lastly, the emission summaries for user-defined areas using the shapes ribbon have been updated to include the same tabs as the pre-defined facility summaries.

# Appendix 1

# Criteria Pollutant Emission Updates in Version 1.1 of the CARB Pollution Mapping Tool

Table 1. Facilities for which criteria pollutant emissions were updated in version 1.1

(Emissions that were revised are highlighted in yellow)

|        |  |      | VOC<br>(tons/year) |        | NOx<br>(tons/year) |        | SOx<br>(tons/year) |        | PM10<br>(tons/year) |        | PM2.5<br>(tons/year) |        |
|--------|--|------|--------------------|--------|--------------------|--------|--------------------|--------|---------------------|--------|----------------------|--------|
| GHGID  | FACILITY NAME                          | YEAR | V. 1.0             | V. 1.1 | V. 1.0             | V. 1.1 | V. 1.0             | V. 1.1 | V. 1.0              | V. 1.1 | V. 1.0               | V. 1.1 |
| 100026 | DG Fairhaven Power LLC                 | 2013 | 19.3               | 19.2   | 160                | 159.7  | 28.2               | 28.1   | 31.4                | 31.2   | 29.2                 | 29     |
| 100051 | MM Tajiguas Energy LLC                 | 2010 | 16.1               | 13.3   | 53.9               | 13.6   | 5.8                | 3.1    | 8.5                 | 5.8    | 7.8                  | 5      |
| 100053 | Blue Lake Power                        | 2013 | 8.5                | 12.4   | 75.4               | 109.6  | 12.5               | 18.2   | 20.1                | 29.2   | 18.6                 | 27     |
| 100058 | Wadham Energy Ltd Partnership          | 2010 | 0.6                | 0.8    | 125.6              | 150.9  | 10.6               | 10.6   | 10.3                | 10.3   | 5.3                  | 5.3    |
|        |  | 2011 | 0.6                | 0.6    | 20.1               | 192.1  | 115.9              | 115.9  | 14.7                | 14.7   | 13.8                 | 13.8   |
| 100314 | Malburg Generating Station             | 2009 | 0                  | 5.3    | 0.1                | 23     | 0                  | 0.9    | 0                   | 24.7   | 0                    | 24.4   |
|        |  | 2010 | 0.1                | 4.5    | 0.1                | 20     | 0                  | 0.8    | 0                   | 21     | 0                    | 20.6   |
|        |  | 2011 | 0                  | 4.1    | 0.2                | 18.5   | 0                  | 0.7    | 0                   | 19.1   | 0                    | 18.8   |
|        |  | 2012 | 0                  | 4.5    | 0.1                | 19.7   | 0                  | 0.8    | 0                   | 21.3   | 0                    | 20.9   |
|        |  | 2013 | 0                  | 4.9    | 0                  | 21     | 0                  | 0.8    | 0                   | 22.3   | 0                    | 22.1   |
| 100328 | Civic Center Cogen LA County           | 2013 | 0                  | 2      | 0                  | 17.2   | 0                  | 2.9    | 0                   | 9.2    | 0                    | 7.9    |
| 100329 | Phillips 66 Company - Los Angeles      |      |                    |        |                    |        |                    |        |                     |        |                      |        |
|        | Refinery - Wilmington Plant            | 2012 | 0                  | 242.3  | 0                  | 498.5  | 0                  | 128.2  | 0                   | 96.2   | 0                    | 91.4   |
| 100387 | Riverside Public Utilities -           | 2011 | 0.2                | 0.2    | 2.3                | 0.6    | 0.3                | 0      | 0.7                 | 0.4    | 0.7                  | 0.4    |
|        | Clearwater Facility                    | 2013 | 0                  | 0.3    | 0                  | 1      | 0                  | 0      | 0                   | 0.7    | 0                    | 0.7    |
| 100392 | Riverside Public Utilities - Riverside |      |                    |        |                    |        |                    |        |                     |        |                      |        |
|        | Energy Resource Center                 | 2013 | 0                  | 0.7    | 0                  | 2.7    | 0                  | 0.1    | 0                   | 1.6    | 0                    | 1.6    |
| 100895 | Berry Petroleum Company - Los          |      |                    |        |                    |        |                    |        |                     |        |                      |        |
|        | Angeles Basin                          | 2013 | 0                  | 75.5   | 0                  | 57.2   | 0                  | 0.9    | 0                   | 6.3    | 0                    | 6.3    |
| 100913 | Phillips 66 Company - Los Angeles      |      |                    |        |                    |        |                    |        |                     |        |                      |        |
|        | Refinery - Carson Plant                | 2012 | 0                  | 102.9  | 0                  | 328.9  | 0                  | 217.2  | 0                   | 60.4   | 0                    | 58.7   |

|        |                                     |      | VOC    |        | N      | Ох     | sc     | Οx     | PM10   |        | PM     | 2.5    |
|--------|-------------------------------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|        |                                     |      | (tons, | /year) |
| GHGID  | FACILITY NAME                       | YEAR | V. 1.0 | V. 1.1 |
| 101056 | Paramount Petroleum Corporation     |      |        |        |        |        |        |        |        |        |        |        |
|        | Refinery                            | 2013 | 0      | 34.1   | 0      | 28     | 0      | 4.4    | 0      | 4      | 0      | 3.8    |
| 101073 | TAMCO                               | 2013 | 0      | 12.9   | 0.1    | 125.8  | 0      | 29.4   | 0      | 41.1   | 0      | 29     |
| 101087 | City of Roseville - Roseville Power |      |        |        |        |        |        |        |        |        |        |        |
|        | Plant #2                            | 2009 | 0.2    | 0.1    | 2.1    | 1.1    | 0      | 0      | 0.2    | 0.1    | 0.2    | 0.1    |
| 101186 | Saputo Cheese USA Inc Paige         | 2008 | 0.3    | 3.2    | 0.8    | 6.6    | 0.2    | 8.2    | 0.5    | 13.4   | 0.5    | 6.7    |
|        |                                     | 2009 | 0.3    | 3.7    | 0.8    | 7.5    | 0.2    | 9.6    | 0.6    | 18     | 0.6    | 8.5    |
|        |                                     | 2010 | 0.3    | 3.7    | 1.3    | 7.5    | 0.2    | 9.6    | 0.5    | 18     | 0.5    | 8.5    |
|        |                                     | 2011 | 0.3    | 2.1    | 1.3    | 4.6    | 0.2    | 4.9    | 0.5    | 13.7   | 0.5    | 5.7    |
|        |                                     | 2012 | 0.3    | 3.4    | 0.5    | 7.1    | 0.2    | 8.5    | 16.5   | 17.5   | 1.1    | 8.1    |
|        |                                     | 2013 | 0.3    | 2.7    | 0.5    | 5.8    | 0.2    | 6.7    | 3.5    | 17.8   | 0.6    | 7.5    |
|        |                                     | 2014 | 0.3    | 3.5    | 0.5    | 7.5    | 0.2    | 8.6    | 4.3    | 22.7   | 0.6    | 9.7    |
| 101192 | MAGTFTC MCAGCC Twentynine           |      |        |        |        |        |        |        |        |        |        |        |
|        | Palms                               | 2014 | 87.8   | 87.8   | 470.8  | 470.8  | 48     | 48     | 7223.3 | 7240.5 | 789.5  | 817.7  |
| 101211 | Calpine - Gillroy Energy Center LLC | 2008 | 2.9    | 0      | 24.3   | 0      | 0.1    | 0      | 2.6    | 0      | 2.6    | 0      |
|        | Yuba City                           | 2009 | 1.9    | 0      | 20.4   | 0      | 0.2    | 0      | 1.7    | 0      | 1.7    | 0      |
|        |                                     | 2010 | 3      | 0      | 22.7   | 0      | 0.3    | 0      | 2.7    | 0      | 2.7    | 0      |
| 101218 | Disneyland Resort                   | 2013 | 0      | 3.4    | 0      | 19     | 0      | 0.1    | 0      | 19.3   | 0      | 12.6   |
| 101318 | Celite Corporation - Lompoc         | 2010 | 25.6   | 16.4   | 237.4  | 50.1   | 87.4   | 87.4   | 156.7  | 156.7  | 24.3   | 24.3   |
| 101320 | Edgington Oil Company               | 2013 | 0      | 4.6    | 0      | 0.3    | 0      | 0      | 0      | 0      | 0      | 0      |
| 101500 | Olam West Coast Inc - Williams      | 2009 | 1.1    | 1.1    | 7.4    | 23.9   | 0.2    | 0.2    | 2      | 2      | 2      | 2      |
|        |                                     | 2010 | 1.1    | 1.1    | 7.4    | 26.1   | 0.2    | 0.2    | 2      | 2.9    | 2      | 2.9    |
|        |                                     | 2013 | 1.5    | 1.5    | 26.5   | 23.6   | 0.3    | 0.3    | 3.3    | 3.3    | 3.3    | 3.3    |
|        |                                     | 2014 | 0.1    | 2.1    | 22.3   | 22.3   | 0      | 0      | 0      | 3.3    | 0      | 3.3    |

|        |                                    |      | VOC<br>(tons/year) |             | N      | Эх     | SOx    |        | PM10   |        | PM     | 2.5    |
|--------|------------------------------------|------|--------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|
|        |                                    |      | (tons,             | (tons/year) |        | /year) | (tons  | /year) | (tons, | /year) | (tons, | /year) |
| GHGID  | FACILITY NAME                      | YEAR | V. 1.0             | V. 1.1      | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 |
| 101529 | Northern California Power Agency - | 2008 | 1.2                | 0.1         | 0      | 0      | 0      | 0      | 0.7    | 0.2    | 0.4    | 0.1    |
|        | Geothermal Plant No. 1             | 2009 | 0                  | 0.1         | 0      | 0      | 0      | 0      | 0      | 0.2    | 0      | 0.1    |
|        |                                    | 2010 | 0                  | 0.1         | 0      | 0      | 0      | 0      | 0      | 0.2    | 0      | 0.1    |
|        |                                    | 2012 | 0                  | 0.1         | 0      | 0      | 0      | 0      | 0      | 0.2    | 0      | 0.1    |
|        |                                    | 2013 | 0                  | 0.1         | 0      | 0      | 0      | 0      | 0      | 0.2    | 0      | 0.1    |
|        |                                    | 2014 | 0                  | 0.1         | 0      | 0      | 0      | 0      | 0      | 0.2    | 0      | 0.1    |
| 101536 | Morning Star Packing Company -     | 2009 | 3.3                | 3.3         | 18.4   | 18.4   | 0.4    | 0.4    | 5      | 4.8    | 5      | 4.8    |
|        | Williams                           | 2010 | 3.3                | 3.2         | 18.4   | 41.2   | 0.4    | 0.4    | 5      | 4.4    | 5      | 4.4    |
|        |                                    | 2011 | 3.3                | 3.1         | 15.6   | 15.6   | 0.4    | 0.4    | 5      | 4.4    | 5      | 4.4    |
| 101540 | Sierra Pacific Power Company -     |      |                    |             |        |        |        |        |        |        |        |        |
|        | Kings Beach Generating Facility    | 2008 | 0                  | 0           | 0.6    | 0.7    | 0      | 0      | 0      | 0      | 0      | 0      |
| 101562 | PG&E Delevan Compressor Station    | 2009 | 2                  | 2           | 85     | 85     | 0.1    | 0.1    | 6.4    | 7.6    | 6.3    | 7.5    |
|        |                                    | 2010 | 2                  | 0.5         | 85     | 104.6  | 0.1    | 0.1    | 80.6   | 4.5    | 6.3    | 4.4    |
| 101574 | Lockheed Martin Aeronautics        |      |                    |             |        |        |        |        |        |        |        |        |
|        | Company - Palmdale                 | 2014 | 16.8               | 16.8        | 0      | 6.8    | 0      | 0.1    | 2.5    | 2.5    | 2.1    | 2.1    |
| 101701 | Air Liquide El Segundo Hydrogen    | 2008 | 567.3              | 12.8        | 866.9  | 11.9   | 429.6  | 0.9    | 194.4  | 2.2    | 185.2  | 2.1    |
|        | Plant                              | 2009 | 557.4              | 18.3        | 641.2  | 18.8   | 385.4  | 0.9    | 198.4  | 3.2    | 188.5  | 3.1    |
|        |                                    | 2010 | 551.2              | 19.5        | 638.7  | 15.5   | 424.5  | 0.8    | 186.9  | 3.4    | 178.1  | 3.2    |
|        |                                    | 2011 | 541.5              | 14.3        | 648.6  | 18.3   | 379.3  | 0.9    | 184.3  | 3.1    | 176.8  | 3      |
|        |                                    | 2012 | 505.4              | 14          | 735    | 15.6   | 421.1  | 1.2    | 172.7  | 3.1    | 162.9  | 3      |
|        |                                    | 2013 | 496.9              | 14.7        | 703.1  | 14.4   | 263.1  | 0.9    | 161.5  | 3.2    | 151.9  | 3.1    |
|        |                                    | 2014 | 496.1              | 6.4         | 701.5  | 16.8   | 325.6  | 1.3    | 189.1  | 3.6    | 177.6  | 3.6    |
| 101736 | Paramount Farms International LLC  | 2008 | 0                  | 0.6         | 0      | 11     | 0      | 0.3    | 0      | 0.9    | 0      | 0.8    |
|        |                                    | 2009 | 0                  | 0.5         | 0      | 8      | 0      | 0.3    | 0      | 7.2    | 0      | 1.8    |

|        |                                    |      | V           | VOC<br>(tons/vear) |        | Ох     | sc     | Эx     | PM10   |        | PM     | 2.5    |
|--------|------------------------------------|------|-------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
|        |                                    |      | (tons/year) |                    | (tons, | /year) | (tons, | /year) | (tons/ | /year) | (tons, | /year) |
| GHGID  | FACILITY NAME                      | YEAR | V. 1.0      | V. 1.1             | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 |
| 101738 | Energy 2001 Placer WRSL            | 2011 | 6.3         | 6.4                | 7      | 9.8    | 4.6    | 12.3   | 10.2   | 11.7   | 10.2   | 11.6   |
| 101750 | Toland Landfill - Ventura Regional | 2008 | 6.6         | 4.3                | 10.1   | 10.1   | 3.4    | 3.4    | 3.3    | 3.3    | 3.3    | 3.3    |
|        | Sanitation District                | 2009 | 6.4         | 4.1                | 8.6    | 8.6    | 2.9    | 2.9    | 2.8    | 2.8    | 2.8    | 2.8    |
|        |                                    | 2010 | 5.7         | 3.4                | 12.9   | 12.9   | 4.1    | 4.1    | 2.6    | 2.6    | 2.6    | 2.6    |
| 104011 | Chevron AAPG 740 Coastal Basin     | 2011 | 7.2         | 7.7                | 52.4   | 52.4   | 27.7   | 27.7   | 25.5   | 25.5   | 25.5   | 25.5   |
|        |                                    | 2012 | 4.6         | 5.2                | 70.6   | 70.6   | 5.6    | 5.6    | 28.3   | 28.3   | 28.3   | 28.3   |
|        |                                    | 2013 | 4.6         | 5.1                | 58.7   | 58.7   | 28.1   | 28.1   | 27.2   | 27.2   | 27.2   | 27.2   |
|        |                                    | 2014 | 9.3         | 9.9                | 57.5   | 57.5   | 29.2   | 29.2   | 55.6   | 55.6   | 55.6   | 55.6   |
| 104012 | Chevron AAPG 745 San Joaquin       | 2011 | 1026        | 1025.5             | 389.2  | 389.2  | 456.9  | 456.9  | 479.5  | 479.5  | 478.9  | 478.9  |
|        | Basin                              | 2012 | 260.1       | 259.5              | 274.4  | 274.4  | 92.7   | 92.7   | 429    | 429    | 428.9  | 428.9  |
|        |                                    | 2013 | 286.9       | 286.3              | 283    | 283.1  | 128.3  | 128.3  | 436.3  | 436.3  | 436.1  | 436.1  |
|        |                                    | 2014 | 318.9       | 318.3              | 356.5  | 356.5  | 124.1  | 124.1  | 563    | 563    | 562.9  | 562.9  |
| 104029 | California Resources Production    | 2011 | 24.7        | 25.2               | 288.7  | 289    | 0.9    | 0.9    | 5.8    | 5.9    | 5.7    | 5.9    |
|        | Corporation - Sacramento Valley    | 2012 | 29          | 29.5               | 295.9  | 296.2  | 0.9    | 0.9    | 5.8    | 5.9    | 5.8    | 5.9    |
|        | Basin 730                          | 2013 | 31.3        | 31.5               | 272.2  | 272.3  | 0.9    | 0.9    | 5.6    | 5.7    | 5.6    | 5.7    |
|        |                                    | 2014 | 28          | 28.1               | 233.1  | 233.1  | 0.9    | 0.9    | 5.7    | 5.8    | 5.7    | 5.8    |
| 104030 | California Resources Production    | 2011 | 48.8        | 48.3               | 57.5   | 57.2   | 12.6   | 12.5   | 25.2   | 25     | 25.2   | 25     |
|        | Corporation - San Joaquin Valley   | 2012 | 58.5        | 58                 | 65.6   | 65.3   | 14     | 14     | 28.5   | 28.4   | 28.5   | 28.4   |
|        | Basin 745                          | 2013 | 64.4        | 64.3               | 69.6   | 69.6   | 15.3   | 15.3   | 30.2   | 30.1   | 30.2   | 30.1   |
|        |                                    | 2014 | 83          | 82.9               | 86.6   | 86.5   | 22.9   | 22.9   | 41.2   | 41.1   | 41.2   | 41.1   |
| 104075 | BreitBurn Operating LP - Los       |      |             |                    |        |        |        |        |        |        |        |        |
|        | Angeles Basin Facility             | 2013 | 23.8        | 38.8               | 9.8    | 24     | 0      | 0.1    | 0.5    | 1.2    | 0.5    | 1.2    |

|        |                                       |      | voc    |             | N      | Ох     | SC     | ΣX     | PM10        |        | PM     | 2.5    |
|--------|---------------------------------------|------|--------|-------------|--------|--------|--------|--------|-------------|--------|--------|--------|
|        |                                       |      | (tons, | (tons/year) |        | /year) | (tons, | /year) | (tons/year) |        | (tons, | /year) |
| GHGID  | FACILITY NAME                         | YEAR | V. 1.0 | V. 1.1      | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 | V. 1.0      | V. 1.1 | V. 1.0 | V. 1.1 |
| 104077 | BWP/MPP Electricity Generating        | 2011 | 0.5    | 9.5         | 3.8    | 23.2   | 0.1    | 2.1    | 5.7         | 18.2   | 4.1    | 17.7   |
|        | Facilities at 164 W. Magnolia         | 2012 | 0.3    | 10.4        | 2.9    | 27.8   | 0      | 0.4    | 4.6         | 8.9    | 2.9    | 7.4    |
|        |                                       | 2013 | 0.1    | 8.5         | 1.6    | 23.4   | 0      | 0.4    | 1.5         | 6      | 0.9    | 5.3    |
|        |                                       | 2014 | 0.5    | 4.7         | 1.4    | 8.8    | 0      | 0.1    | 0.1         | 9.1    | 0.1    | 7.9    |
| 104079 | El Cajon Energy LLC                   | 2012 | 0.1    | 0.1         | 1.1    | 1.9    | 0.1    | 0.1    | 2.1         | 0.7    | 2.1    | 0.7    |
|        |                                       | 2013 | 0.1    | 0.1         | 1.1    | 1.9    | 0.1    | 0.1    | 2.1         | 0.7    | 2.1    | 0.7    |
|        |                                       | 2014 | 0.1    | 0.1         | 1.1    | 1.9    | 0.1    | 0.1    | 2.1         | 0.7    | 2.1    | 0.7    |
| 104090 | Signal Hill Petroleum Facilities      | 2011 | 18.7   | 34.3        | 0      | 4.1    | 0      | 0.2    | 0           | 1.4    | 0      | 1.4    |
|        |                                       | 2012 | 19.2   | 35.9        | 0      | 3.7    | 0      | 0.2    | 0           | 1.5    | 0      | 1.5    |
|        |                                       | 2014 | 11.4   | 22.6        | 0.7    | 7.1    | 0      | 0.2    | 0.2         | 1.7    | 0.2    | 1.7    |
| 104215 | E&B Natural Resources - San           | 2012 | 76.3   | 6.5         | 4.8    | 4.5    | 0.6    | 0.6    | 1.5         | 1.4    | 1.5    | 1.4    |
|        | Joaquin Valley                        | 2013 | 87.1   | 6.7         | 3.7    | 3.4    | 2.3    | 2.3    | 2.4         | 2.4    | 2.4    | 2.4    |
|        |                                       | 2014 | 59.3   | 9.8         | 8.5    | 7.8    | 4.9    | 4.8    | 5.4         | 5.2    | 5.4    | 5.2    |
| 104218 | Walnut Creek Energy LLC (opt-in 2014) | 2013 | 0      | 0.9         | 0      | 37.8   | 0      | 1      | 0           | 1.9    | 0      | 1.8    |
| 104219 | CPV Sentinel Energy Center (opt-in    |      |        |             |        |        |        |        |             |        |        |        |
|        | 2014)                                 | 2013 | 0      | 1.3         | 0      | 20.6   | 0      | 1.1    | 0           | 3.9    | 0      | 3.9    |
| 104363 | Weber Metals                          | 2013 | 0      | 6.1         | 0      | 16.4   | 0      | 0.1    | 0           | 6      | 0      | 4.1    |
| 104377 | Huntington Memorial Hospital          | 2013 | 0      | 2.7         | 0      | 2.8    | 0      | 0.1    | 0           | 1      | 0      | 1      |
| 104413 | Venoco Inc SB Channel (Onshore)       | 2012 | 5.8    | 87.3        | 0      | 4.1    | 0      | 4.7    | 0           | 1.3    | 0      | 1.3    |
|        |                                       | 2013 | 5.8    | 82.8        | 0      | 2.5    | 0      | 2.7    | 0           | 1      | 0      | 1      |
|        |                                       | 2014 | 5.8    | 87.5        | 0      | 2.7    | 0      | 2.6    | 0           | 0.9    | 0      | 0.9    |
| 104449 | Sierra Pacific Industries (SPI) -     |      |        |             |        |        |        |        |             |        |        |        |
|        | Arcata                                | 2013 | 2.9    | 2.5         | 17.3   | 11.9   | 2      | 1.4    | 16.1        | 12.6   | 14.1   | 10.8   |

Table 2. Facilities which were missing criteria pollutant emissions in a given year in version 1.0

|        |                                    |      |        | VOC<br>(tons/year) |        | NOx<br>(tons/year) |        | Ox<br>/year) | PM10<br>(tons/year) |        |        | 2.5<br>/year) |
|--------|------------------------------------|------|--------|--------------------|--------|--------------------|--------|--------------|---------------------|--------|--------|---------------|
| GHGID  | FACILITY NAME                      | YEAR | V. 1.0 | V. 1.1             | V. 1.0 | V. 1.1             | V. 1.0 | V. 1.1       | V. 1.0              | V. 1.1 | V. 1.0 | V. 1.1        |
| 100001 | ACE Cogeneration                   | 2011 |        | 3.8                |        | 326.5              |        | 224          |                     | 52     |        | 29.2          |
| 100002 | Tesoro Los Angeles Refinery -      | 2013 |        | 3.5                |        | 188.3              |        | 277.9        |                     | 17.8   |        | 10            |
|        | Wilmington Calciner                | 2014 |        | 3.6                |        | 210                |        | 322.8        |                     | 19.6   |        | 10.7          |
| 100040 | Eel River Power LLC                | 2008 |        | 33.1               |        | 228.2              |        | 30.5         |                     | 29.9   |        | 27.7          |
| 100053 | Blue Lake Power                    | 2014 |        | 11.2               |        | 99.2               |        | 16.5         |                     | 26.4   |        | 24.5          |
| 100192 | PG&E Humboldt Bay Generating       | 2011 |        | 5.8                |        | 24.6               |        | 0.4          |                     | 3.1    |        | 3.1           |
|        | Station                            | 2012 |        | 7.9                |        | 15.3               |        | 0.3          |                     | 9.2    |        | 9.2           |
|        |                                    | 2013 |        | 4.2                |        | 17.7               |        | 0.3          |                     | 2.3    |        | 2.3           |
| 100195 | New-Indy Ontario LLC Linerboard    |      |        |                    |        |                    |        |              |                     |        |        |               |
|        | Mill                               | 2014 |        | 50                 |        | 173.7              |        | 1.3          |                     | 18.2   |        | 16.9          |
| 100303 | Phillips 66 Company - San          | 2011 |        | 160.2              |        | 309.7              |        | 393.2        |                     | 57.8   |        | 55.2          |
|        | Francisco Refinery                 | 2012 |        | 165.2              |        | 310                |        | 393.6        |                     | 59.3   |        | 56.6          |
|        |                                    | 2013 |        | 280.2              |        | 266.5              |        | 408.8        |                     | 52.3   |        | 51.7          |
|        |                                    | 2014 |        | 251.3              |        | 229.5              |        | 361          |                     | 82.5   |        | 74.6          |
| 100314 | Malburg Generating Station         | 2014 |        | 5.2                |        | 25.1               |        | 0.9          |                     | 23.8   |        | 23.6          |
| 100329 | Phillips 66 Company - Los Angeles  | 2013 |        | 253.7              |        | 762.4              |        | 125.1        |                     | 130.2  |        | 123.9         |
|        | Refinery - Wilmington Plant        | 2014 |        | 273.2              |        | 459.4              |        | 110.5        |                     | 140.5  |        | 117           |
| 100344 | Southern California Edison (SCE) - | 2011 |        | 41.4               |        | 105.2              |        | 11.7         |                     | 91.3   |        | 91.1          |
|        | Mountainview Generating Station    | 2012 |        | 57.5               |        | 131.5              |        | 16.3         |                     | 126.9  |        | 126.6         |
|        |                                    | 2013 |        | 48.2               |        | 109.6              |        | 13.6         |                     | 106.3  |        | 106.1         |
|        |                                    | 2014 |        | 54.7               |        | 123.8              |        | 15.5         |                     | 131.5  |        | 126.9         |

|        |                                   |      |        | VOC<br>(tons/year) |        | Ox<br>/year) | SOx<br>(tons/year) |        | PM10<br>(tons/year) |        | PM<br>(tons | 2.5<br>/year) |
|--------|-----------------------------------|------|--------|--------------------|--------|--------------|--------------------|--------|---------------------|--------|-------------|---------------|
| GHGID  | FACILITY NAME                     | YEAR | V. 1.0 | V. 1.1             | V. 1.0 | V. 1.1       | V. 1.0             | V. 1.1 | V. 1.0              | V. 1.1 | V. 1.0      | V. 1.1        |
| 100351 | Phillips 66 Company - San         | 2011 |        | 0.1                |        | 482.8        |                    | 1139.7 |                     | 35.1   |             | 15.8          |
|        | Francisco Carbon Plant            | 2012 |        | 0.1                |        | 482.8        |                    | 1139.7 |                     | 37.7   |             | 16.2          |
|        |                                   | 2013 |        | 0.1                |        | 238.5        |                    | 1241.9 |                     | 28.3   |             | 28            |
|        |                                   | 2014 |        | 0.1                |        | 288.5        |                    | 1142.3 |                     | 21.8   |             | 21.6          |
| 100387 | Riverside Public Utilities -      |      |        |                    |        |              |                    |        |                     |        |             |               |
|        | Clearwater Facility               | 2014 |        | 0.2                |        | 0.8          |                    | 0      |                     | 0.5    |             | 0.5           |
| 100913 | Phillips 66 Company - Los Angeles | 2013 |        | 115.6              |        | 335.6        |                    | 240.7  |                     | 63.3   |             | 61.6          |
|        | Refinery - Carson Plant           | 2014 |        | 89.6               |        | 368.5        |                    | 330.4  |                     | 67     |             | 61.3          |
| 101180 | Chevron Energy Solutions 93272    | 2008 |        | 0.3                |        | 0.8          |                    | 0.4    |                     | 1.6    |             | 1.6           |
|        |                                   | 2009 |        | 0.2                |        | 0.4          |                    | 0.2    |                     | 1.1    |             | 1.1           |
| 101246 | Tesoro Los Angeles Refinery -     | 2013 |        | 560.3              |        | 698.2        |                    | 508.7  |                     | 276.7  |             | 264           |
|        | Carson                            | 2014 |        | 750.4              |        | 1383.9       |                    | 517.3  |                     | 577.7  |             | 500           |
| 101314 | National Cement Company - Lebec   | 2011 |        | 14.5               |        | 817.1        |                    | 12.9   |                     | 213.4  |             | 146.5         |
| 101358 | Northrop Grumman - Palmdale       | 2014 |        | 20.4               |        | 14.1         |                    | 0.5    |                     | 1.5    |             | 1.4           |
| 101371 | San Gabriel Cogeneration Facility | 2014 |        | 2.5                |        | 12           |                    | 0.3    |                     | 1.5    |             | 1.2           |
| 101529 | Northern California Power Agency  |      |        |                    |        |              |                    |        |                     |        |             |               |
|        | - Geothermal Plant No. 1          | 2011 |        | 0.1                |        | 0            |                    | 0      |                     | 0.2    |             | 0.1           |
| 101530 | Northern California Power Agency  |      |        |                    |        |              |                    |        |                     |        |             |               |
|        | - Geothermal Plant No. 2          | 2008 |        | 1.2                |        | 0            |                    | 0      |                     | 0.7    |             | 0.4           |
| 101680 | Sierra Pacific Industries (SPI) - | 2008 |        | 25                 |        | 137          |                    | 15.8   |                     | 50.2   |             | 37.9          |
|        | Lincoln                           | 2009 |        | 1.8                |        | 123.8        |                    | 7.8    |                     | 59.6   |             | 46.8          |
| 104341 | Paramount Petroleum Corporation   |      |        |                    |        |              |                    |        |                     |        |             |               |
|        | - Elk Grove Asphalt Terminal      | 2014 |        | 0.6                |        | 3.1          |                    | 0.1    |                     | 0.8    |             | 0.8           |
| 104359 | Windset Farms                     | 2012 |        | 1.1                |        | 7.3          |                    | 0.1    |                     | 1.5    |             | 1.5           |
|        |                                   | 2013 |        | 1.2                |        | 7.8          |                    | 0.1    |                     | 1.6    |             | 1.6           |

|        |                                |      | VOC<br>(tons/year) |        | N      | Ох     | S      | Ох     | PIV    | 110    | PM     | 2.5    |
|--------|--------------------------------|------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|        |                                |      |                    | /year) |        | /year) |        | /year) | (tons  | /year) | (tons, | /year) |
| GHGID  | FACILITY NAME                  | YEAR | V. 1.0             | V. 1.1 | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 | V. 1.0 | V. 1.1 |
| 104364 | Houweling Nurseries            | 2013 |                    | 1.5    |        | 7.1    |        | 0.2    |        | 2.2    |        | 2.2    |
| 104450 | Buena Vista Biomass Power LLC  | 2014 |                    | 1.2    |        | 82.5   |        | 11.7   |        | 27.3   |        | 16.4   |
| 104455 | DTE Stockton LLC               | 2014 |                    | 37.1   |        | 93.6   |        | 1.9    |        | 5.2    |        | 4.8    |
| 104580 | Hood Dairy                     | 2012 |                    | 1      |        | 1.5    |        | 0.1    |        | 0.8    |        | 0.8    |
|        |                                | 2013 |                    | 1      |        | 1.7    |        | 0.1    |        | 1.2    |        | 1.2    |
|        |                                | 2014 |                    | 1      |        | 1.8    |        | 0.1    |        | 1.2    |        | 1.2    |
| 104610 | Seneca Foods Corporation*      | 2012 |                    | 0.6    |        | 0.4    |        | 0.3    |        | 0.8    |        | 0.8    |
|        |                                | 2013 |                    | 0.6    |        | 0.4    |        | 0.3    |        | 0.9    |        | 0.9    |
|        |                                | 2014 |                    | 0.5    |        | 0.3    |        | 0.3    |        | 0.7    |        | 0.7    |
| 104611 | Newport Fab LLC (DBA TowerJazz | 2011 |                    | 7.6    |        | 4.4    |        | 0.2    |        | 5.2    |        | 5.1    |
|        | Semiconductor)*                | 2012 |                    | 7.2    |        | 4.5    |        | 0.2    |        | 4      |        | 2.7    |
|        |                                | 2013 |                    | 7.5    |        | 4.1    |        | 0.2    |        | 2.7    |        | 1.9    |
| 104614 | Sierra Aluminum Company*       | 2011 |                    | 2.4    |        | 7.6    |        | 0.1    |        | 2.1    |        | 2      |
|        |                                | 2012 |                    | 2.6    |        | 8      |        | 0.1    |        | 2.1    |        | 1.9    |
|        |                                | 2013 |                    | 2.4    |        | 8.8    |        | 0.1    |        | 2.3    |        | 2      |
|        |                                | 2014 |                    | 1.2    |        | 8.5    |        | 0.1    |        | 2.1    |        | 1.7    |
| 104615 | Sharp Grossmont Hospital*      | 2011 |                    | 0.3    |        | 38.6   |        | 0.1    |        | 1      |        | 1      |
|        |                                | 2012 |                    | 0.3    |        | 37.1   |        | 0.1    |        | 1      |        | 1      |
|        |                                | 2013 |                    | 0.3    |        | 37.1   |        | 0.1    |        | 1      |        | 1      |
|        |                                | 2014 |                    | 0.4    |        | 17.7   |        | 0.1    |        | 0.8    |        | 0.8    |
| 104616 | Pacific Clay Products*         | 2011 |                    | 0.7    |        | 10.7   |        | 0      |        | 6.4    |        | 2.4    |
|        |                                | 2012 |                    | 0.8    |        | 9.1    |        | 0.1    |        | 10.9   |        | 3.3    |
|        |                                | 2013 |                    | 0.8    |        | 9.2    |        | 0.1    |        | 11.6   |        | 2.5    |
|        |                                | 2014 |                    | 0.9    |        | 10.7   |        | 0.1    |        | 5.9    |        | 2.9    |

California Air Resources Board A-8 June 15, 2017

|        |                                    |      |        | VOC (tons/year) |        | Ox<br>/year) |        | Ox<br>/year) |        |        | PM<br>(tons) | 2.5<br>/year) |
|--------|------------------------------------|------|--------|-----------------|--------|--------------|--------|--------------|--------|--------|--------------|---------------|
| GHGID  | FACILITY NAME                      | YEAR | V. 1.0 | V. 1.1          | V. 1.0 | V. 1.1       | V. 1.0 | V. 1.1       | V. 1.0 | V. 1.1 | V. 1.0       | V. 1.1        |
| 104626 | Santa Clara Valley Medical Center* | 2011 |        | 0.4             |        | 15.3         |        | 0.1          |        | 0.4    |              | 0.4           |
|        |                                    | 2012 |        | 0.4             |        | 14.2         |        | 0.1          |        | 0.4    |              | 0.4           |
|        |                                    | 2013 |        | 0.4             |        | 15.5         |        | 0.1          |        | 0.4    |              | 0.4           |
|        |                                    | 2014 |        | 0.5             |        | 17.1         |        | 0.1          |        | 0.4    |              | 0.4           |
| 104629 | Mission Bell Winery*               | 2011 |        | 42.7            |        | 1.8          |        | 0.3          |        | 1.1    |              | 1             |
|        |                                    | 2012 |        | 35.3            |        | 1.9          |        | 0.4          |        | 1.1    |              | 1             |
|        |                                    | 2013 |        | 35.5            |        | 2.3          |        | 0.4          |        | 1.2    |              | 1.1           |
|        |                                    | 2014 |        | 34.5            |        | 2            |        | 0.4          |        | 1.1    |              | 1             |
| 104632 | Sacramento Rendering Company*      | 2014 |        | 0.6             |        | 2.5          |        | 0.1          |        | 0.8    |              | 0.8           |
| 104633 | Matchmaster Dyeing & Finishing*    | 2011 |        | 6.1             |        | 6.3          |        | 0.1          |        | 1.2    |              | 1.2           |
|        |                                    | 2012 |        | 3.3             |        | 5.5          |        | 0.1          |        | 1.2    |              | 1.2           |
|        |                                    | 2013 |        | 6.2             |        | 6            |        | 0.1          |        | 0.6    |              | 0.6           |
|        |                                    | 2014 |        | 5.4             |        | 5.5          |        | 0.1          |        | 1.3    |              | 1.3           |
| 104638 | Western Milling Goshen CA*         | 2012 |        | 0.3             |        | 0.9          |        | 0.2          |        | 3      |              | 0.4           |
|        |                                    | 2013 |        | 0.3             |        | 0.9          |        | 0.2          |        | 3      |              | 0.4           |
|        |                                    | 2014 |        | 0               |        | 0            |        | 0            |        | 1.1    |              | 0.1           |
| 104643 | Ventura Coastal*                   | 2014 |        | 1.7             |        | 1.6          |        | 1.2          |        | 3.6    |              | 3.6           |
| 104658 | Mission Foods Corporation*         | 2011 |        | 1.9             |        | 8.2          |        | 0.1          |        | 1.5    |              | 1.1           |
|        |                                    | 2012 |        | 1.7             |        | 8.1          |        | 0.1          |        | 1.5    |              | 1.1           |
|        |                                    | 2013 |        | 20.2            |        | 8            |        | 0.1          |        | 1.4    |              | 1             |
|        |                                    | 2014 |        | 22.9            |        | 3.6          |        | 0            |        | 0.5    |              | 0.5           |

 $<sup>{}^{*}</sup>$ These facilities were newly identified by CARB as required to report under MRR

Table 3. Facilities for which incorrect emissions were reported in version 1.0

|        |  |      |        | VOC (tons/year) |        | Ox<br>/year) | SOx<br>(tons/year) |        | PM10<br>(tons/year) |        | PM<br>(tons/ |        |
|--------|--|------|--------|-----------------|--------|--------------|--------------------|--------|---------------------|--------|--------------|--------|
| GHGID  | FACILITY NAME  | YEAR | V. 1.0 | V. 1.1          | V. 1.0 | V. 1.1       | V. 1.0             | V. 1.1 | V. 1.0              | V. 1.1 | V. 1.0       | V. 1.1 |
| 100160 | Byron Power Partners LP <sup>1</sup>                                     | 2008 | 9.1    |                 | 15.4   |              | 0                  |        | 0.8                 |        | 0.8          |        |
|        |  | 2009 | 10.4   |                 | 17.9   |              | 0.1                |        | 0.9                 |        | 0.9          |        |
| 100356 | Calpine - Gilroy Energy Center LLC                                       | 2008 | 1.8    |                 | 61.1   |              | 0.3                |        | 3.7                 |        | 3.1          |        |
|        | King City Peaker <sup>2</sup>  | 2009 | 1.4    |                 | 78.5   |              | 0.4                |        | 3.8                 |        | 3.4          |        |
|        |  | 2010 | 1      |                 | 72     |              | 0.4                |        | 3.6                 |        | 3.1          |        |
| 100387 | Riverside Public Utilities -<br>Clearwater Facility <sup>3</sup>         | 2012 | 0.2    |                 | 2      |              | 0.4                |        | 0.8                 |        | 0.8          |        |
| 101354 | Covanta - Pacific Recovery<br>Corporation - Oxnard Facility <sup>4</sup> | 2010 | 4.6    |                 | 21.2   |              | 1.3                |        | 2.2                 |        | 2.1          |        |
| 101729 | ConAgra Foods - Helm Facility <sup>5</sup>                               | 2008 | 0      |                 | 0      |              | 0                  |        | 0.1                 |        | 0.1          |        |
|        |  | 2009 | 0      |                 | 0      |              | 0                  |        | 0.1                 |        | 0            |        |
| 104079 | El Cajon Energy Center LLC <sup>6</sup>                                  | 2011 | 0.2    |                 | 1.8    |              | 0.1                |        | 3                   |        | 3            |        |
| 5003   | Long Beach Gas & Oil Dept (LBGO) <sup>7</sup>                            | 2011 |        |                 |        |              |                    |        |                     |        |              |        |
| 5026   | Orchard Petroluem South Belridge <sup>8</sup>                            | 2011 |        |                 |        |              |                    |        |                     |        |              |        |
| 104025 | Pacific Gas and Electric Company   | 2011 |        |                 |        |              |                    |        |                     |        |              |        |
|        | (PG&E) - Gas Distribution System   | 2012 |        |                 |        |              |                    |        |                     |        |              |        |
|        | Fugitive Emissions (San Francisco CA) <sup>9</sup>                       | 2013 |        |                 |        |              |                    |        |                     |        |              |        |
|        | CAJ  | 2014 |        |                 |        |              |                    |        |                     |        |              |        |
| 104115 | San Diego Gas and Electric (SDG&E)                                       | 2011 | 1      |                 | 62.3   |              | 6.7                |        | 22.2                |        | 73.5         |        |
|        | - Natural Gas Distribution Sub W <sup>10</sup>                           | 2012 | 0.7    |                 | 45     |              | 4.7                |        | 15.5                |        | 15.3         |        |
|        |  | 2013 | 0.6    |                 | 71.3   |              | 7.9                |        | 10.8                |        | 86.8         |        |
|        |  | 2014 | 0.1    |                 | 52     |              | 5.5                |        | 8.4                 |        | 8.4          |        |

<sup>&</sup>lt;sup>1</sup>Byron Power Partners LP - The local air district has not reported emissions for this facility as a separate entity.

<sup>10</sup>San Diego Gas and Electric (SGD&E) - Natural Gas Distribution Sub W - This facility is reporting under subpart W petroleum and natural gas fugitive emissions. This facility does not represent any actual facility; it is used as a placeholder for all fugitive emissions statewide.

<sup>&</sup>lt;sup>2</sup>Calpine - Gilroy Energy Center LLC King City Peaker - The local air district has not reported emissions for this facility as a separate entity.

<sup>&</sup>lt;sup>3</sup>Riverside Public Utilities - Clearwater Facility - This facility was initially matched to the incorrect CEIDARS facility, but the crosswalk (and emissions) have been corrected. The facility did not report emissions in 2012.

<sup>&</sup>lt;sup>4</sup>Covanta - Pacific Recovery Corporation - Oxnard Facility closed in 2009. Emissions were incorrectly carried forward to 2010.

<sup>&</sup>lt;sup>5</sup>ConAgra Foods - Helm Facility - This facility was initially matched to the incorrect CEIDARS facility, but the crosswalk (and emissions) have been corrected. The facility did not report emissions in 2008 or 2009.

<sup>&</sup>lt;sup>6</sup>El Cajon Energy Center LLC - This facility was initially matched to the incorrect CEIDARS facility, but the crosswalk (and emissions) have been corrected. The facility did not report emissions in 2011.

<sup>&</sup>lt;sup>7</sup>Long Beach Gas & Oil Dept (LBGO) - This is a fuel supplier, and does not represent an actual facility.

<sup>&</sup>lt;sup>8</sup>Orchard Petroleum South Belridge - This is a fuel supplier, and does not represent an actual facility.

<sup>&</sup>lt;sup>9</sup>Pacific Gas and Electric Company (PG&E) - Gas Distribution System Fugitive Emissions (San Francisco CA) - This facility is reporting under subpart W petroleum and natural gas fugitive emissions. This facility does not represent any actual facility; it is used as a placeholder for all fugitive emissions statewide.